

PE 82-5

TERRITORY OF ALASKA

DEPARTMENT OF MINES

PROPERTY PRELIMINARY EXAMINATION REPORT

PARKS CINNABAR PROSPECT
(Willis & Lyman, Owners)

K+ 82-10

SLEITMUTE DISTRICT, ANIAK PRECINCT

KUSKOKWIM REGION, ALASKA
(Sleitmute Quadrangle)

by

M. W. JASPER

Territorial Mining Engineer

April 1956

CONTENTS

| | <u>Page</u> |
|---|-------------|
| SUMMARY | 1 |
| INTRODUCTION | 2 |
| LOCATION AND ACCESSIBILITY | 2 |
| TOPOGRAPHY | 2 |
| TIMBER AND VEGETATION | 3 |
| WATER SUPPLY | 3 |
| HISTORY AND OWNERSHIP | 3 |
| Recent Work | 4 |
| GEOLOGY | 5 |
| Mineralization | 6 |
| Sampling | 7 |
| CONCLUSIONS | 8 |
| RECOMMENDATIONS | 9 |
| APPENDED | |
| Map I. | |
| REFERENCES | |
| U.S. Bureau of Mines R.I. 4065, Pages 19-22. May 1947. Mercury Deposits of Southwestern Alaska | |
| U.S. Geological Survey Bul. 622, Pages 272-289. 1914. Quicksilver Deposits of the Kuskowin Region | |
| U.S. Geological Survey Professional Paper 268. 1955. The Central Kuskokwim Region, Alaska. Page 110. | |

REPORT ON
PARKS CINNABAR PROSPECT
SLEITMUTE DISTRICT, ANIAK PRECINCT
KUSKOKWIM REGION, ALASKA

SUMMARY

The cinnabar discoveries made last year on the old Parks property through dozer stripping, which exposed one more or less continuously mineralized zone about 350 feet in length across five to six foot (horizontal) average width, are the most promising the writer has seen.

Following the brief October 6th visit an additional 150 feet on the same zone is reported by owners to have been exposed on stripping to the southeast, making a total length of 450 to 500 feet of more or less continuous mineralization. This additional length is stated to show similiar widths with two sections apparently widening out to 15 feet or more in width with higher values.

Mr. Lyman is reported to have made a new discovery of highgrade in the river bank 600 feet to southeast of Areas "A" and "B" and considers it to possibly be upon the same sill structure.

"Open" on both ends of the stripped area, it is possible that further stripping this spring will lengthen the zone an appreciable distance. This new discovery is considered to be one warranting attention of a competent mining company, and one holding possibility of becoming a profitable quicksilver producer at an early date. Indications pointing to additional nearby cinnabar mineralization suggests that it may prove on exploration and development suitable for an open pit mining operation to a reasonable depth.

INTRODUCTION

At request of George H. Willis and Robert F. Lyman a brief preliminary examination was made October 6, 1955 of the area stripped between July and time of visit last year on the old Parks property. Four hours were spent examining the new showings exposed by ground sluicing and stripping with tractor. With rainy weather prevailing for several weeks prior to visit, and difficulty encountered in clearing off the showings to reveal a clean bedrock due to mud, and the limits of this mineralization not yet determined it was decided that a detailed examination be delayed until May or June this year.

LOCATION AND ACCESSIBILITY

Located in the Sleitmute district, Aniak Precinct, Kuskokwim River Region, the old Parks property (the Alice and Bessie mineral claims) lies at approximate geographical coordinates Longitude $157^{\circ} 20'$ and Latitude $61^{\circ} 3'$.

The claims are approximately 4 miles downstream from the Red Devil mine of Decoursey Mountain Mining Company, and lies on northeast bank "bluff" of the Kuskokwim River. River level elevation is about 220 feet and the bluff edge is an estimated 200 to 250 feet above the river.

The area is serviced twice weekly (currently every Wednesday and Saturday) by a twin engined six place pontoon (or ski) equipped Cessna plane of Northern Consolidated Airlines. This "bush" run services the region between Mc Grath and Bethel - all points along the river between those two towns.

The Red Devil Mine airstrip, about $1\frac{1}{2}$ mile below that mine, will accomodate DC-3 planes.

Bulk freight shipments are hauled up river from Bethel - a port of call two or three times yearly for stateside freighters - by river transportation companies from late June until October.

TOPOGRAPHY

The immediate vicinity of the old Parks property is one of low relief.

From the bluff edge to the northeast there is a gentle surface slope of 5 to 10 degrees for a mile or more to base of a low, well-rounded, short mountain system about 30 miles in length having three peaks with elevations ranging from 1674 to 2012 feet elevation. Its trend is northwesterly, and parallels the Kuskokwim river.

TIMBER AND VEGETATION

Only small scattered spruce occurs on the property and for some distance to the northeast. However, there is abundant spruce for lumber and mine timber available along the river both upstream and down stream from the property.

There is a fairly thick growth of small poplar and birch along the lower slopes of the area, but underbrush is neither dense nor high, so that cross-country travel is relatively easy in the district.

The surface is largely covered with moss generally limited to a few inches in thickness. Grass is neither high nor abundant.

The Kuskokwim region is noted for its mosquito and fly pestilence and this area is no exception.

WATER SUPPLY

Water supply for domestic purposes is limited to Parks creek and should be sufficient for a fair sized camp. The supply might not be enough to take care of a reduction plant, in which case water could be pumped from the river.

HISTORY AND OWNERSHIP

E. W. Parks made the original "whiteman's" discovery in this district in 1906, and the Alice and Bessie lode claims were located by him that year. Later six additional claims were located by Parks but were dropped within a few years.

"Over a period of years, Parks prospected the property and occasionally retorted a little mercury in conjunction with his occupation of trader. Successively, he is reported to have used (in retorting) a small drum, a small Scott furnace, and a Johnson-McKay furnace. His operation was apparently designed to supply the mercury requirements of the Georgetown and Iditarod gold placers, and toward meeting this demand he produced about 120 flasks up to and including 1923. There has been no production from the property since then.

"Shallow pits and irregular surface excavations furnished the ore for this intermittent operation. His first production is reported to have been derived from an outcrop near top of the river bluff. Later he mined ore from open cuts and a shallow short adit presumably in that portion of the main orebody represented by Bureau of Mines trenches 14 to 17 or in an oreshoot extending westerly from the main orebody. (See figure 7).

He also obtained a considerable amount of this ore from shallow pits over the main orebody in vicinity of Bureau of Mines trenches 4 and 5.

"Parks had driven a cross-cut adit for about 200 feet and encountered mineralization reported by the U.S. Geological Survey in 1914 (Bul. 622). In 1936, following the death of Mr. Parks, W. E. Dunkle leased the property and extended the adit cross-cut to an over-all length of 525 feet. The main ore zone was encountered 450 feet from the portal, and a 240 foot drift was driven within the ore zone to the southeast."*

Following Mr. Dunkle's work the property was kept in good standing by performance of annual assessment work by Mr. Parks estate and/or his associates.*

In recent years George H. Willis, of Sleitmute, acquired a half interest in the property for maintainance of the property through performance of the annual assessment work. About a year and half ago Robert F. Lyman bought the remaining half interest through (or from) Nick Mellick, Sleitmute trader and mining property owner in that region for over 45 years.*

Following Mr. Lyman's acquisition of a half interest Willis and Lyman located an additional 8 claims (2 claims wide and 4 claims long) on strike of the formation to the northwest. These additional claims are reported by them to completely cover the block of ground between the Parks claims on the southeast and the Oswald and George H. Willis cinnabar property to the northwest.

Numerous trenches, open-cuts, some test-pits, and locations of the two old adits of Mr. Parks were noted, during the October 1955 preliminary examination, as well as the trenching done by the U.S. Bureau of Mines in 1944.

Recent Work

In July 1955 Lyman and Willis purchased a new 6 inch diesel powered pump and mounted it on a river raft anchored to shore several points below the old Parks workings. The water was pumped up the bluff slope through 9 inch slip joint hydraulic pipe and the bluff face swept clean at numerous points by ground sluicing, and use of a small "giant" or monitor. The bedrock on the bluff face was examined by George Willis as each of the numerous sections were swept clean, and he reports no cinnabar occurrences of special interest was exposed by this work.

This program was continued through August and most of September, although it was frequently interrupted by an unusually heavy and prolonged rainy spell throughout this period.

Certain "float" found by Lyman and Willis previously indicated presence of cinnabar occurrences some distance back from the bluff edge and strip-ping by dozer in this area was then undertaken in late September and continued until about mid-October. This phase of the work was also plagued by rainy weather in September. The program was suspended for the year by cold weather.

The stripped section with its exposed cinnabar showings of unusual interest was not tied-in by a survey but its location and extent is believed approximately correct. *

GEOLOGY

The geology and structure on the Parks property is described with considerable detail in U.S. Geological Survey publications (**) and in report of work done by the U.S. Bureau of Mines. ***

In brief, the property is located on the northeasterly limb of the Sleitmute anticline (the Red Devil mine being located upon the anticlines southwest limb four miles upstream and on opposite side of river).

"The country rock in vicinity of the prospect consists of sandstones, shales (and graywackes) of Cretaceous age. The sandstones are rather fine grained and appear to have no pebbly phases, most of the grains are angular. The shales are black and so fine grained that the individual particles are not recognizable. Near the mineralized areas these rocks are considerably shattered and in places much slickensided. The rupturing does not appear to be widespread, and a short distance from the claims the normal unshattered condition of the rocks prevail." ****

The sediments have been intruded by numerous sills and a few dikes. The widest of these is said to range from 5 to 20 feet thick and reported to be at least 700 feet in length. In the U.S. Bureau of Mines report they are referred to as andesite, and by the U.S. Geological Survey described as granitic rocks (in one case as "closely comparable with diabase," and all other sills are referred to as a "light gray, nearly white rock, belongs to the group of granitic rocks") *****

The sills and dikes are also referred to "as sills and dikes of silica-carbonate rock" due to the more or less complete alteration of the feldspar minerals. *****

Where stripped by tractor last fall near northeast limits of the area a persistent sill was uncovered for full length of the cut having a 3 to 4 foot (apparent) width. At northwest end of this cut an old test pit was exposed in stripping; its total depth was possibly 8 or 10 feet and it intersected the footwall side of this sill.

Underlying the above noted sill - and also at extreme northwest end of this tractor stripped area - four additional sills were exposed and are spaced 15 to 18 feet apart. These occur in the first 50 to 60 feet to the southwest as shown by sketch on Map 1 attached.

-5-

- * Refer to Map I attached.
- ** USGS Bul. 622, Pages 275 to 278, & Prof. Paper 268, Page 110.
- *** USBM R.I. 4065, Pages 20-21.
- **** USGS Prof. Paper 268, Page 110.
- ***** USGS Bul. 622, Page 276, & Prof. Paper 268, Page 110.
- ***** USGS Prof. Paper 268, Page 110.

They had been uncovered only for length of 5 to 10 feet on their strike, and appear to be 2 to 3 feet in widths. These 4 sills and their hangwall shales were well mineralized for their exposed lengths.

Dip of the sediments taken at a number of points along ground-sluiced sections on bluff face were 25 to 30 degrees northeast, and dips across the stripped area on top of bluff were within the same range. Strike of the formation taken at same points were N25 to 30W. In vicinity of the old Ammiline prospect, about 1500 feet northeasterly from the 1955 stripped area, in a dozer cut made last season, dip of the sediments was found to be 55 degrees northeast. The steep dips reported in the 525 adit cross-cut (presently inaccessible) - ranging from 23° near portal to 80° near face of cross-cut - suggests sharp local flexures or warping of the sediments rather than a steadily increasing dip of the formation as a whole. *

Mineralization

The brief examination made of several ground-sluiced sections on the bluff face did not reveal cinnabar mineralization to any marked extent. The exposed bedrock shows some isolated, spotty and lightly mineralized cinnabar occurrences associated with narrow sills. Stibnite occurs at those points also and is much more abundant than the cinnabar. None of these occurrences in themselves were of sufficient extent to be of economic importance or to encourage their exploration.

It would appear that the trenching, open-cut, and test-pit work done by Mr. Parks from 1906 to 1923, resulting in the limited production of 100 to 120 flasks of quicksilver, came from very small lenses or pods. It also appears that the trenches (for the most part) cross-cut the formation and that no concentrated effort was made to follow along the strike of the sills for appreciable distances to determine how frequently the small lenses or "pods" might reoccur. With lack of a planned development or exploration program objective it seems obvious that work done was sporadic in nature and in those early days of that remote region placer mining requirements were irregular and uncertain.

The area uncovered last fall from bluff edge to the northeast (refer to Map I, attached) exposed a previously unknown cinnabar occurrence of real interest.

This area - called "A" for reference on Map I - has an estimated width of 125 feet at southeast end and 225 feet at northwest end, and a length of 350 feet. Width of cinnabar mineralization is 5 to 6 feet (horizontal) and it is more or less continuous for full length of the cut. The showing was obscured in some places by wet "muck" trailing under the dozer blade, but wherever this covering was dug into mineralization to the bluff edge was exposed. Following each "pass" of the dozer from northeast limits of cut within an hour and a

half the undersigned picked-up an estimated 300 to 400 pounds of cinnabar.

This sill (located on the northeast side of the cut) is mineralized across its full width, with heaviest concentration of cinnabar on its hanging-wall side. The hanging-wall shale is also well mineralized for two feet or more; digging into this shale with a pick we found additional very good cinnabar mineralization, which suggests its horizontal total width to be greater than the above mentioned 5 to 6 feet at a number of points.

Stibnite was the only other mineral noted associated with the cinnabar. The heavier the cinnabar concentrations, the more stibnite is present. The high-grade spots, however, at this horizon, do not carry as much stibnite as is the general rule in the Red Devil Mine ore-shoots.

Both Mr. Willis and Mr. Lyman report that good cinnabar "float" (residual weathering source ?) have been encountered at northeast limits of the cut about 30 to 40 feet beyond the showing above described. This suggests possibility of additional parallel cinnabar occurrences in that section.

At the northwest limits of Area "A", where four additional cinnabar occurrences were exposed for 5 to 10 feet, good values are present. The lateral extent and limits of these showings were to be determined when bedrock Area "A" was finally cleaned.

Following the October 6th visit to the property, Mr. Willis reported that he had continued stripping to the southeast for an additional estimated 150 feet. This work is said to have exposed even better cinnabar values for the full distance, and would make a total length on this more or less continuous ore-shoot of 450 to 500 feet. At two points Mr. Lyman has reported that the cinnabar mineralization apparently widened to 15 feet or more, although he states it is entirely possible that the dozer blade cut an unusually high-grade section and spread and pressed the cinnabar into the soft weathered bedrock across that width. The area of this additional work is sketched in on Map I, and is labelled Area "B". Cold weather and tractor "breakdowns" are reported to have forced suspension of work before bedrock in Areas "A" and "B" could be finally swept clean by dozer blade.

It has also been reported that Mr. Lyman found a high-grade cinnabar showing on the river bank an estimated 600 feet southeast of Area "B", last mid-October. Willis and Lyman believe this new showing may be on the same mineralized zone as that exposed for 450 to 500 feet. Its "tentative" location is shown at bottom of Map I.

Sampling and Values

No samples were "cut" at time of the October 6th preliminary examination,

as a detailed investigation and sampling of the showings could best be done early this season after the stripping was completed, and bedrock cleaned.

However, it was estimated that the long more or less continuous showing would range from 1% to 3% mercury (20 to 60 pounds per ton) across a true width of 4 to 5 feet for the length exposed. Appreciably higher grade sections were noted, which might possibly raise the average value.

The four additional cinnabar occurrences underlying the main showing, whose exposures were limited to strike lengths of 5 to 10 feet at that time, contain similar values across 2 to 3 foot widths.

CONCLUSIONS

The cinnabar occurrences uncovered by stripping in Areas "A" and "B" last year on the old Parks property are believed of unusual interest and potential economic value. They are, in fact, the first worthwhile discoveries made during the 50 year history of the property. The property warrants examination by a competent mining company, and it is believed results of such an investigation this spring will justify an exploration program this season.

Although last years work and that done by the previous owners, and the U. S. Bureau of Mines, were not tied-in by an accurate survey, it is believed that the location of stripping operations completed in 1955, as shown on Map I, is approximately correct. Based upon that assumption, and upon the numerous dip and strike readings taken, it is suggested that there is a good possibility that future exploration work by surface diamond drilling and/or underground development will prove that the sill uncovered in Areas "A" and "B" for 450 to 500 feet on its strike was not intersected by the 525 foot cross-cut, and that it lies a short distance to the northeast of that adits face.

In support of this assumption is the fact that dip readings show an average of 25° to 30° northeast across 400 feet width of the sediments on the surface, and the possibility that the steep dips shown to prevail in the cross-cut are due to short local folds rather than an steadily (or abrupt) steepening dip for the formation as a whole in the 200 foot vertical distance.

Projection of 30° average dip would throw this sill 240 to 270 feet to northeast of cross-cuts southeast drift; 40° average dip would place it 140 to 180 feet beyond the drift; 50° dip would throw it 70 to 100 feet beyond; and a 60° average dip would probably confirm it to be the same sill as followed in the drift.

Major faulting in this immediate area has not been noted in government reports and no major displacements were personally observed.

RECOMMENDATIONS

The following initial program is recommended for this property:-

1. Stripping by tractor should be resumed as soon as weather conditions permit this spring, with first objective being to determine the ultimate limits of mineralization. This should include following the zone first uncovered in Area "A" and continued southeast 600 feet to the reported high-grade discovery made last fall on the river bank and considered by owners to possibly be on the same structure.

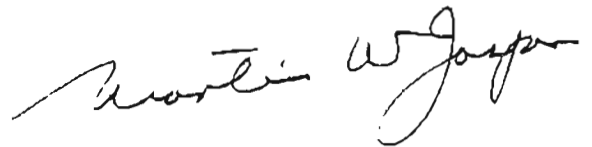
Completing this work to southeast, the zone should then be stripped to northwest to its mineralized limits.

2. Strip several cross-sections of the formation with dozer several hundred feet in length on northeast side of Area "A" to determine whether there are nearby parallel mineralized zones as suggested by the reported finding of "float" on that side of the stripped area.

3. A systematic sampling at 5 foot intervals along the mineralized zones as soon as weather conditions permit.

4. Mapping of area on receipt of sampling results to permit laying out a surface diamond drilling program. Favorable results from a well planned 6 to 8 week drilling program will permit preparations to be completed before fall for winter underground development and/or preparations for an open-pit mining operation next year.

5. Clear adit portal to permit examination and diamond drilling from the drift should that prove desirable.



Martin W. Jasper
Territorial Mining Engineer
Territorial Department of Mines

Anchorage, Alaska
May 3, 1956

TERRITORY OF ALASKA
DEPARTMENT OF MINES
329 SECOND AVENUE
BOX 2139
ANCHORAGE, ALASKA

82 - ~~Stripping~~
PE

October 31, 1955

ITINERARY REPORT

TO: Phil R. Holdsworth, Commissioner of Mines

FROM: Martin W. Jasper, Territorial Mining Engineer

SUBJECT: Investigation of stripping operation in progress at the old Parks cinnabar prospect, located about 4 miles downstream from the Red Devil Mine camp, and on opposite (northeast) bank of the Kuskokwim River.

The Alice and Bessie cinnabar claims were taken over by Robert Lyman and George H. Willis last winter. A large pump was bought and mounted on a raft during July 1955 on the river, and the bluff face was stripped by ground sluicing and use of a monitor at numerous points, during the past summer.

During September stripping by tractor was started and continued the following month. The wet weather caused numerous interruptions during this phase of the operation. The work has been done by George Willis who had one man assisting - Harvey Winchell - for part of the season.

October 6th: Arrived on the property at 10 AM from the Red Devil Mine and remained there until 4:30 that afternoon. With no accommodations available returned that evening and spent the night at Oswald Willis', located at the Red Devil airstrip.

The ground sluicing and hydraulicking of the bluff face did not uncover any showings of special interest, but served the purpose of exposing the mineralized sections which were responsible for Mr. Parks early exploration, and probably for that done by W. E. Dunkle in the late '30's (1936-37).

Results of the tractor stripping at time of visit were very encouraging. A bedrock area approximately 300 to 325 feet in length (more or less paralleling the bluff edge, with east side of cut bearing N27E), and about 125 feet wide at south end and 175 feet wide at north end has been stripped. Along east limit of cut an mineralized zone has been more or less continuously exposed for length of the cut; its width (horizontal) varies from 4 to 6 feet although full width is probably not exposed. Values were estimated within limits of 1 to 4% or better at numerous points. Mineralization occurs in a narrow sill (2 to 3 feet wide) and in the hanging-wall shale. Dip of the sediments in this cut appear to average 30° to 35° east.

ITINERARY REPORT
PARKS HgS PROSPECT
Oct. 6th, 1955

At north end of this stripped area at least 3 (possibly 4) additional and similar mineralized zones were exposed for short (few feet) lateral distances. These are spaced ~~about~~ at about 15 foot intervals across 50 to 60 foot width underlying and to southwest of the 300 foot showing. Being on the lower side (bluff side) their possible continuity was obscured by the tractor travel in stripping more or less at right angles to strike of the sediments in the prevailing wet weather.

The mineralization in these showings is similar to first mentioned and are also associated with narrow skills. Suggested widths (without benefit of fresh trenching across them by hand) appear to be at least 3 feet.

No effort was made to sample the several showings; it was decided to wait until fresh bedrock was exposed at finish of stripping this area.

An estimated ^{quarter} half ton of high grade was picked ^{up} by the undersigned during course of stripping over an $1\frac{1}{2}$ to 2 hour period.

With the flat dip locally prevailing in this cut (30° to 35°) and an estimated distance of 300 feet or more northeast of the adit ^{525 foot} cross-cut portalllocated on bluff a short distance above river level and an estimated 125 to 150 feet above that adit portal, it would appear that these recently disclosed cinnabar showings were not encountered by the Parks or Dunkle cross-cuts. However, a survey along this section on surface will be required to confirm this opinion.

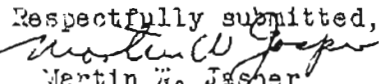
The apparent strike of the 300 foot showing was extended to the northwest by Brunton and "picket" line with recommendations made for stripping in that direction. Its projection to the southeast will carry it ^{to} bluff edge within limits of 150 to 200 feet. Ground sluicing or hydraulicking had not been done that ^{far} to the southeast.

Approximately 1500 feet to east of north end of the stripped area above described is location of several pits and shallow trenches made by a Mr. Etcheron about time of Mr. Parks original discoveries. A few years later a Mr. Amalon relocated the Etcheron ground, did more test-pitting, and drove an adit of undetermined length. This area was briefly checked, but to date the reputed high-grade cinnabar said to have been found by Amalon has not been found nor the adit located. Depth to bedrock in that section of gentle slope is one to two feet, and dip of sediments exposed in a short trench stripped ^{by} tractor past season is 50° to 55° east with strike of N30W locally. Further exploration is planned for this area.

October 7th: Left Oswald Willis' cabin at 9:55 AM with Vanderpool Fyling Service for McGrath in "floet" plane (180 Cessna), arriving McGrath at 11:10 AM with 15 minute stop at Slaitmute. First half of trip was through snowstorm with a few hundred foot ceiling and $\frac{1}{2}$ mile visibility.

Waited at McGrath for NCA plane until 8:20 PM, arriving at Anchorage at 9:40 PM.

Territorial Mining Engineer

Respectfully submitted,

Martin W. Jasper